Amendments to the Specification:

Please replace the paragraph beginning at page 22, line 12 with the following amended paragraph:

As previously noted, another alternative embodiment of probe 300 operates in a "passive" mode. This embodiment, designated in Figure 2C as probe 300B, preferably employs an analog electronic circuit 303 comprising an inductor, in the form of probe receive/transmit coil 304A, and a moisture sensing capacitor 312 comprising capacitor plates 324 and a hydrophilic dielectric 328 disposed between the capacitor plates 324. The structure and operation of probe 300B are generally similar to that of the embodiment of probe 300 depicted in Figure 2B except that probe 300B does not include an energy storage capability such as is provided by energy storage capacitor 316A of probe 300A (see Figure 2B). Rather, probe receive/transmit coil 304A is energized directly by reader 200. Probe 300B thus requires that reader 200 transmit excitation signal 202 over a broad band so as to ensure that probe 300B is sufficiently energized to effect data acquisition and data transmission. Further, because probe 300B does not employ energy storage functionality, its analog circuit comprising probe receive/transmit coil 304A and moisture sensing capacitor 312 immediately resonates at substantially the same frequency or harmonic as that of excitation signal 202 transmitted thereto by reader 200. Additionally, the lack of energy storage functionality in electronic circuit 303 of probe 300B means that relatively little of excitation signal 202 provided by reader 200 is captured and returned by probe 300B. Hence, data signal 302 transmitted by probe 300B is somewhat less powerful than excitation signal 202 transmitted by reader 200.

Please add the following new paragraph before the paragraph beginning at page 12, line 8:

Data relating to spatial location of the probes is collected and saved for future processing at the time the probes are placed. This enables later generation of moisture maps of various portions of the geographical area in which the probes were placed. Additionally, the amount of

water dispersed on different portions of an agricultural field may be varied based on different readings from the various probes. The location data may be stored in the reader 200 or a remote site 600.